

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 5 (BRANCH AVENUE) AND MD 381 (BRANDYWINE ROAD) IN PRINCE GEORGE'S COUNTY, MARYLAND. MD 5 IS CONSIDERED TO RUN IN A NORTH/SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER SHALL BE REMOVED AND A NEW BASE MOUNTED CABINET AND CONTROLLER SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A FULL ACTUATED MODE USING 8 NEMA PHASES. VIDEO DETECTION SHALL BE INSTALLED. THE LEFT TURN PHASES ALONG NORTHBOUND AND SOUTHBOUND MD 5 (BRANCH AVENUE) SHALL OPERATE WITH EXCLUSIVE LEFT TURN PHASING. THE LEFT TURN PHASES ALONG EASTBOUND AND WESTBOUND BRANDYWINE ROAD SHALL OPERATE WITH EXCLUSIVE/PERMISSIVE LEFT TURN PHASING. THE CONTRACTOR SHALL CONTACT MR. EDWARD RODENHIZER, SIGNAL SHOP SUPERVISOR, 2 WEEKS IN ADVANCE OF ANY CHANGES THAT WILL BE NEEDED TO THE SIGNAL PHASING AS IT RELATES TO SPECIFIC WORK BEING PERFORMED DURING EACH PHASE OF CONSTRUCTION.

NOTES

- FOR FINAL PAVEMENT MARKINGS, REFER TO THE PAVEMENT MARKING PLANS, AS APPLICABLE; OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH ADMINISTRATION STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN THE APPROPRIATE 800 SERIES STANDARD PLATES. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- DISCONNECTING AND SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY THE CONTRACTOR. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. CONTACT MR. EDWARD RODENHIZER AT (410) 787-7652 SEVENTY-TWO HOURS IN ADVANCE OF INTENDED WORK.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- THE CONTRACTOR SHALL MAINTAIN THE CONTINUOUS OPERATION OF ALL INTERCONNECT, VEHICULAR, PEDESTRIAN DETECTORS, AND LIGHTING DEVICES. IF ANY DEVICE IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED WITHIN 72 HOURS BY THE CONTRACTOR AT NO COST TO THE ADMINISTRATION AFTER NOTIFICATION BY THE ENGINEER.

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE STATE HIGHWAY ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
900000	BASE MOUNTED (SIZE 6) CABINET AND CONTROLLER (MSHA SPECIFICATION) WITH VIDEO DETECTION INTERFACE EQUIPMENT FOR 1-4 CAMERAS	EA	1
900000	VIDEO DETECTION INTERFACE EQUIPMENT RACK FOR 5-8 CAMERAS	EA	1
973023	SHEET ALUMINUM SIGNS CONSISTING OF:	SF	147.5
	R3-5(L) (30"x36") MAST ARM MOUNT	EA	4
	R3-1 (30" x30") MAST ARM MOUNT	EA	1
	R3-5(R) (30"x36") MAST ARM MOUNT	EA	1
	D-3(2) (VAR. X16") MAST ARM MOUNT	EA	4
	SHIELD ASSEMBLY (48"x75") POLE MOUNT	EA	2
	SHIELD ASSEMBLY (30"x51") POLE MOUNT	EA	2

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

CAT CODE	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	2
585414	24 INCH WHITE LEAD FREE REFLECTIVE THERMO. PAVEMENT MARKING	LF	180
800000	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT	LS	1
800000	PULL BACK AND REROUTE EXISTING INTERCONNECT CABLE	LF	210
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	11.4
801607	INSTALL SHEET ALUMINUM SIGNS	SF	71.25
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	320
805115	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	180
805118	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	290
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	30
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	220
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	30
807202	METERED SERVICE PEDESTAL	EA	1
810601	NON-INVASIVE DETECTORS, 500 FOOT LEAD - IN CABLE	EA	2
810605	NON-INVASIVE DETECTORS, 1000 FOOT LEAD - IN CABLE	EA	3
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	11
813015	INSTALL OVERHEAD SIGN	EA	75.75
816001	VIDEO DETECTION CAMERA	SF	5
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION	EA	2
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION	EA	3
818051	STEEL POLE WITH TWIN 50 FT. AND 70 FT. MAST ARMS	EA	2
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	2
832017	CABLE - 1 CONDUCTOR, NO 4 AWG, TYPE USE, 600V	LF	750
837001	GROUND ROD - 3/4 INCH DIAMETER X 10' LENGTH	EA	6
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	48
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)	LF	160
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)	LF	1655
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)	LF	855
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	380
866104	20 FT. LIGHTING ARM ON SIGNAL STRUCTURE	EA	2
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER EQUIPMENT TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACTS

OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
SUPERVISOR, SIGNAL SHOP
410-787-7650

MR. EUGENE BAILEY
MANAGER, SIGN OPERATIONS
410-787-7670

MS. DARLENE EIDE
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

DISTRICT

MR. KEVIN NOWAK
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7336

PG - MR. BRIAN YOUNG
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PG - 301-513-7358

MR. AUGIE REBISH
ASSISTANT DISTRICT ENGINEER - UTILITIES
301-513-7350

MR. VERNON STINNETT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
301-513-7630

POWER COMPANY

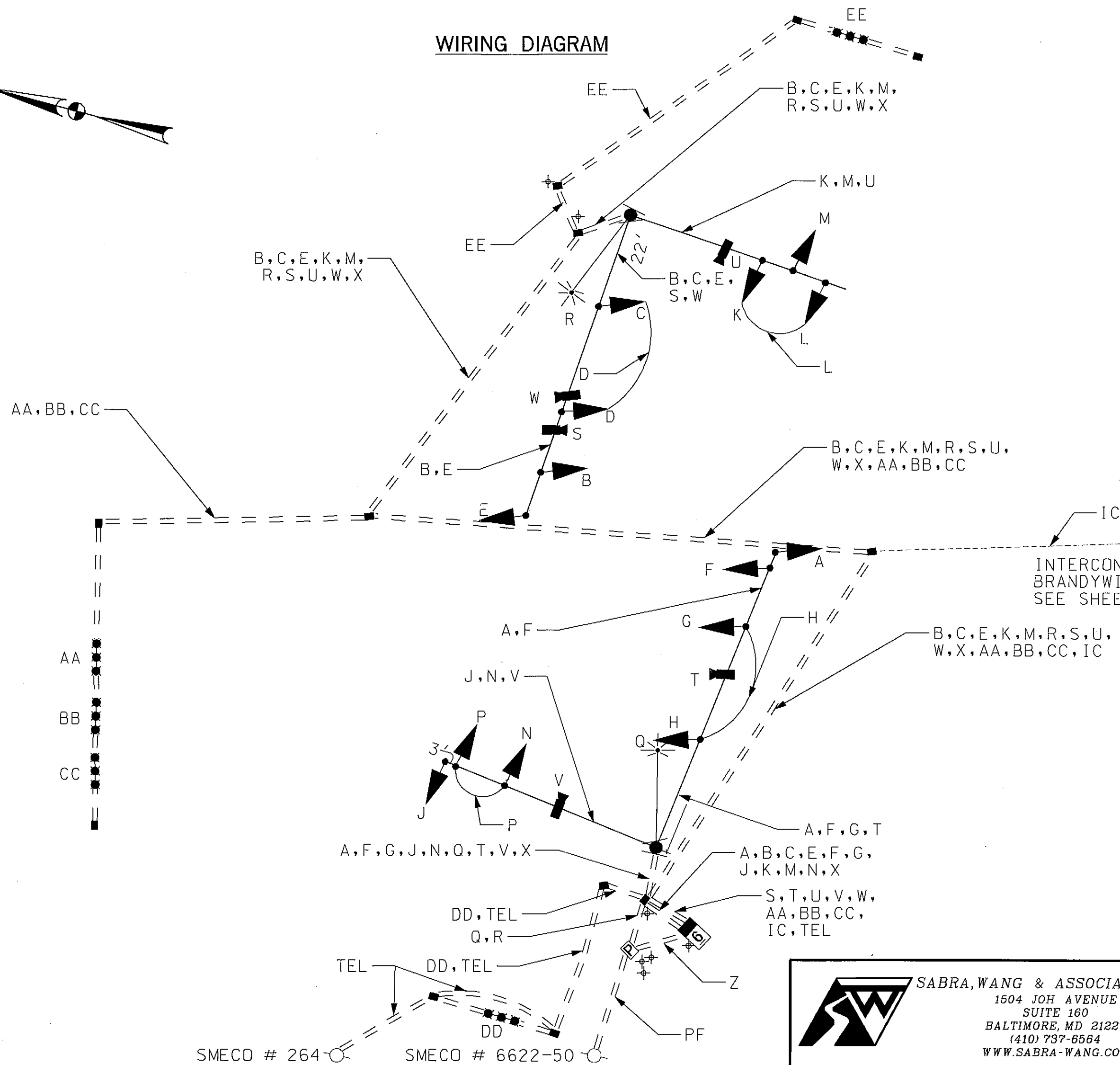
SOUTHERN MARYLAND ELECTRICAL COOPERATIVE
4061 POWDER MILL ROAD, SUITE 600
CALVERTON, MD 20705
301-843-6142

PHASE CHART

1	2	3	4	5	6	7	8	9	10	11	12	13	14
←R→	←R→	R	R	←R→	←R→	R	R	R	R	R	R	R	R
←Y→	←Y→	Y	Y	←Y→	←Y→	Y	Y	←Y→	←Y→	Y	Y	←Y→	←Y→
←G→	←G→	G	G	←G→	←G→	G	G	←G→	←G→	G	G	←G→	←G→

PHASE 1 AND 5	←G→	←G→	R	R	←G→	←G→	R	R	R	R	R	R	R	R
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6														
PHASE 1 AND 6	←R→	←R→	R	R	←G→	←G→	G	G	R	R	R	R	R	R
1 AND 6 CHANGE	←R→	←R→	R	R	←Y→	←Y→	Y	Y	R	R	R	R	R	R
PHASE 2 AND 5	←G→	←G→	G	G	←R→	←R→	R	R	R	R	R	R	R	R
2 AND 5 CHANGE	←Y→	←Y→	Y	Y	←R→	←R→	R	R	R	R	R	R	R	R
PHASE 2 AND 6	←R→	←R→	G	G	←R→	←R→	G	G	R	R	R	R	R	R
2 AND 6 CHANGE	←R→	←R→	Y	Y	←R→	←R→	Y	Y	R	R	R	R	R	R
PHASE 3 & 7	←R→	←R→	R	R	←R→	←R→	R	R	←G→	←G→	R	←G→	←G→	R
3 & 7 CHANGE TO 3 AND 8, 4 AND 7, OR 4 AND 8														
PHASE 3 AND 8	←R→	←R→	R	R	←R→	←R→	R	R	←GG→	←GG→	G	R	R	R
3 & 8 CHANGE	←R→	←R→	R	R	←R→	←R→	R	R	←YY→	←YY→	Y	R	R	R
PHASE 4 AND 7	←R→	←R→	R	R	←R→	←R→	R	R	R	R	R	←GG→	←GG→	G
4 & 7 CHANGE	←R→	←R→	R	R	←R→	←R→	R	R	R	R	R	←YG→	←YG→	G
PHASE 4 AND 8	←R→	←R→	R	R	←R→	←R→	R	R	G	G	G	G	G	G
4 & 8 CHANGE	←R→	←R→	R	R	←R→	←R→	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/←R→	FL/←R→	FLY	FLY	FL/←R→	FL/←R→	FLR	FLY	FLR	FLR	FLR	FLR	FLR	FLR

WIRING DIAGRAM



KEY

A,B,E,F } 7 CONDUCTOR ELECTRICAL CABLE
J,K,M,N } (NO. 14 AWG)

C,D,G } 5 CONDUCTOR ELECTRICAL CABLE
H,L,P } (NO. 14 AWG)

Q,R } 2 CONDUCTOR ELECTRICAL CABLE
(NO. 12 AWG) TRAY CABLE

S,T,U } VIDEO DETECTION CABLE
V,W }

AA,BB,CC } NON-INVASIVE PROBES
DD,EE } LEAD-IN CABLE

X } 1 CONDUCTOR (NO. 6 AWG) BARE
STRANDED COPPER GROUND WIRE

Z } 3-WIRE 1 CONDUCTOR (NO. 4 AWG)

PF } POWER FEED BY OTHERS (SMECO)

IC } EXISTING INTERCONNECT CABLE

TEL } TELEPHONE SERVICE (BY OTHERS)

+ GROUND ROD



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 5 (BRANCH AVENUE)
AT BRANDYWINE ROAD

TRAFFIC SIGNAL PLAN

SCALE NTS ADVERTISED DATE 02/12/2009 CONTRACT NO. PG1755270

DESIGNED BY V.NALLAMOTHU COUNTY PRINCE GEORGE'S

DRAWN BY V.NALLAMOTHU LOGMILE 16000503.11

CHECKED BY K.RINKER TMS NO. J437

F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 1808 DRAWING pSG OF N001 SHEET NO. 98 OF 110



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